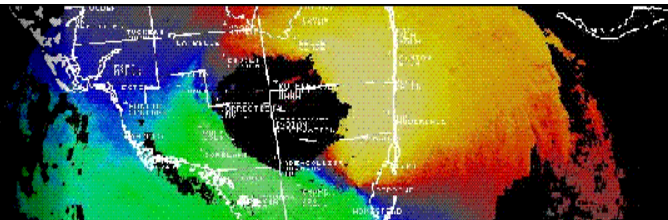


# Tropical Winds

The Official Newsletter of WFO Miami



Base Velocity of Hurricane Wilma - Oct 2005

ISSUE 2 - FALL 2010

Welcome to the second issue of "Tropical Winds". We hope that you continue to enjoy this publication. If you missed previous issues, they are available [here](#).

South Florida is quickly approaching the mid-way point of the 2010 hurricane season, however it is never too early or too late to go over how to best prepare for a hurricane. So far this hurricane season South Florida has only been affected by one mild tropical cyclone, but this can always change. For more information and preparedness tips check out <http://www.fema.gov/hazard/hurricane/>, or [www.ready.gov](http://www.ready.gov).

## *In This Issue...*

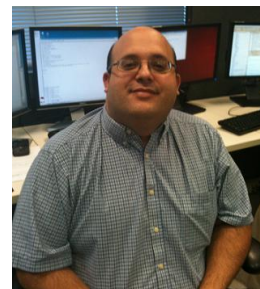
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## *A Message from the MJC* *Dr Pablo Santos*



Miami Beach - 2007 - Andrew Tingle

Hello everyone!! It is a great pleasure to write to you as the new Meteorologist In Charge of the National Weather Office in Miami. It will be an honor to serve the South Florida community in this capacity in the coming years. Please know that I am available either via email ([pablo.santos@noaa.gov](mailto:pablo.santos@noaa.gov)) or via our public phone line (305-229-4528). This summer has not been uneventful. We just had [the hottest summer on record across South Florida for the June to August period](#) and we had Tropical Storm Bonnie. The Atlantic tropical cyclone activity is still on track for an [above normal season](#). Regardless of how active the season ends up being, remember that "it only takes one". So I encourage you to review your family preparedness plan now, whether you will be riding out the storm at



home or evacuating to a safer location inland. Don't have a plan? No better time than now to get one started! Check out the [State of Florida's Emergency Management plan development page](#) and always keep the [NWS Miami web page](#) bookmarked for the latest weather information. We still have what climatologically is the most active part of the season (September and October) ahead of us. In fact, this month of September we observe two important hurricane anniversaries: the 50th anniversary of category 4 Hurricane Donna in 1960 and the 75th anniversary of the category 5 Labor Day Hurricane in 1935. Both of these storms were devastating to the Florida Keys and Everglades National Park, and the 1935 storm killed hundreds of World War I veterans working on the Overseas Highway. Take a few minutes sometime soon to read about these two hurricanes in the [NWS WFO Miami past events web site](#). By understanding our hurricane past, we can better prepare for hurricane threats in the future. I hope you find the following articles in this 2010 Fall version of WFO Miami Newsletter informative.



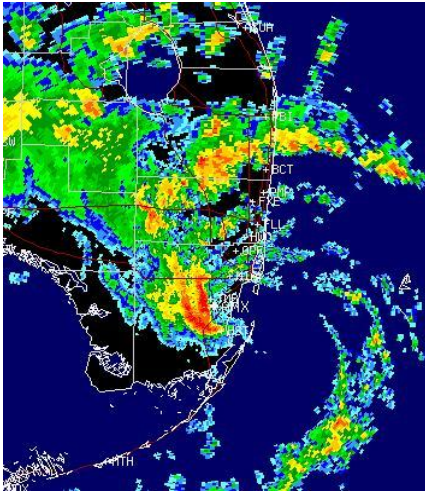
## Hottest Summer on Record

*By Andrew Tingle*

Summer in South Florida is expected to be hot, but this summer has been really hot! The main climate stations in South Florida of Miami International Airport, Fort Lauderdale/Hollywood International Airport, Palm Beach International Airport, and Naples Regional Airport have all experienced record or near record warmth. Monthly temperatures of 1 to 4 degrees above normal were common. Each recording station had monthly abnormalities that placed them in the top 5 warmest for the respective sites for May, June, and July. Miami experienced its warmest May and June on record and also a streak of 31 consecutive days at or above 90 degrees which is 3 days shy of the record set in 1952. Unsettled weather on July 3<sup>rd</sup> kept the afternoon high for MIA at 88 degrees breaking the streak. Fort Lauderdale and Naples both experienced the warmest June on record, however West Palm Beach only experienced the 2<sup>nd</sup> warmest June and July on record. Factoring in the

also above normal temperatures for August, and all the east coast sites recorded the warmest summer (June through August) on record, with Naples recording its second warmest summer on record. For additional information on the record warmth of summer 2010, click [here](#). Interesting to note, however, is that when these record warm summer months are factored in with the very cool (below average) winter months, year to date temperatures are still below normal!

## Tropical Storm Bonnie

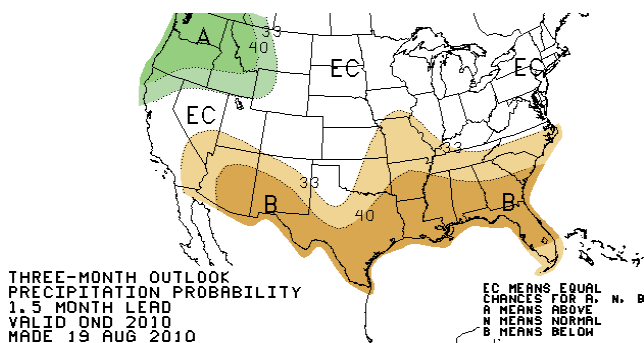


Tropical Depression #3 developed over the southern Bahamas during the morning of July 22<sup>nd</sup> and eventually became Tropical Storm Bonnie while moving toward South Florida. The center of the minimal tropical storm made landfall at Cutler Bay a little before noon during July 23<sup>rd</sup> and then emerged in the Gulf of Mexico near Naples during the afternoon. Wind gusts of 35 to 45 mph were common across the metropolitan sections of Miami-Dade and Broward Counties and rainfall generally ranged from 1 to 3 inches along the southeast coast to around half an inch elsewhere across mainland South Florida.

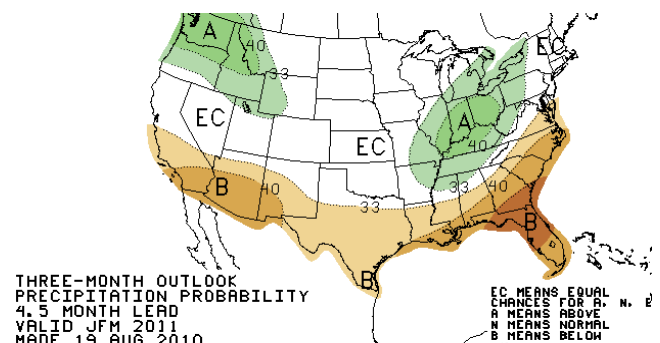
## Fall and Winter Outlook

*By Barry Baxter*

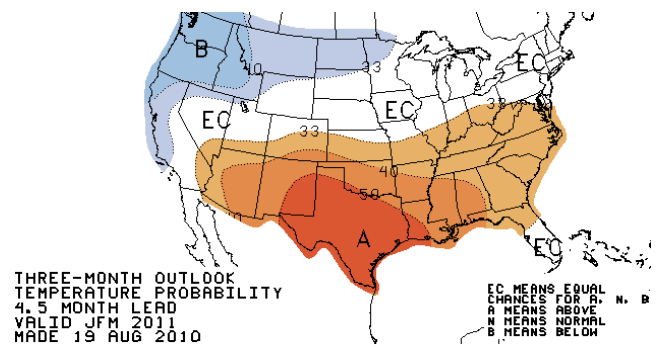
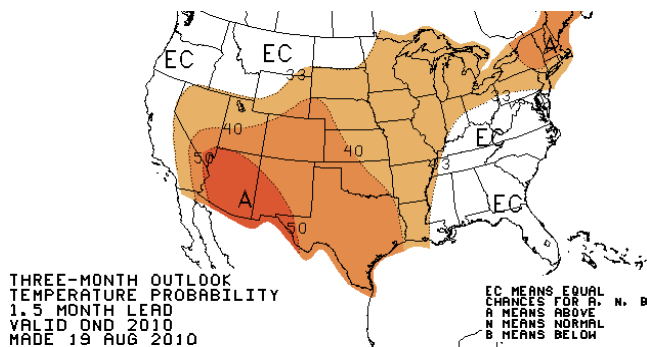
Moderate La Niña conditions are expected to continue or even strengthen over the Pacific Ocean waters this fall and winter. This typically sets up a drier than normal dry season over South Florida (which runs from mid-October to mid to late May). NOAA's Climate Prediction Center (CPC) is calling for below normal rainfall for this winter over South Florida, along with near normal temperatures. A more detailed outlook for the upcoming dry season will be provided sometime in October.



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The graphics above are the CPC precipitation outlooks for the October-December period (left) and the January through March period (right). Both sets of graphics indicate an increased likelihood of drier than normal conditions.



The graphics above are the CPC temperature outlooks for the October-December period (left) and the January through March period (right). Both sets of graphics indicate equal chance of above, below or near normal temperatures across South Florida.

## *In the Community*

Wind and heavy rain in Weston - Jun 2010 - Andrew Tingle

### **WFO Miami Outreach Program: Taking the NWS to the Community**

*By Robert Mollada*

The primary mission of the National Weather Service is to issue forecasts and warnings for the protection of life and property. A key component of this mission involves community preparedness and outreach. Many people don't realize that the National Weather Service directly participates in numerous outreach/community preparedness events throughout the year.



**WFO Miami is no exception. We are proud to serve the South Florida community by providing speakers for groups interested in weather safety and awareness. Topics frequently involve hurricanes and tropical cyclones in general, but can also include lightning, rip currents and other weather-related hazards. Groups range from civic and business groups such as Rotary clubs and Chamber of Commerce organizations to private businesses and community association groups. Our meteorologists and technicians participate in many school Career Days/Fairs throughout the academic year, promoting weather safety and careers in Meteorology to elementary and middle school students.**



**One of the highlights of our outreach calendar is our participation in community fairs and recreational events. WFO Miami has been an active participant at the Miami-Dade County Fair and Expo for two decades, as well as other large events such as the Broward and Collier County fairs, Home and Design Shows, and municipal and county-wide hurricane and safety fairs and seminars in all of our 6 counties in South Florida. These large events enable us to reach a large and wide-ranging audience with our message of weather preparedness and safety. Our participation at the events consists of a booth display with brochures and other pertinent information, with staff members eager to answer questions from attendees, as well as more formal presentations in front of large audiences.**

**Last, but not least, is perhaps the most important part of WFO Miami's outreach program: interaction and collaboration with our key partners in Emergency Management and Media. The National Weather Service works closely with both sets of partners to ensure that our information is being disseminated and interpreted properly. Our partnership with Emergency Managers and Media is a two-way street. Via regular workshops and informal meetings, ideas and proposals regarding NWS services are exchanged and feedback is offered in order to better serve not only our partners, but the general public as well.**

**If you would like further information on WFO Miami's outreach program, and/or if you would like to request one of our meteorologists to be a speaker/participant at your event, please contact Robert Molleda, Warning Coordination Meteorologist, at 305-229-4522, Ext 223.**

# WFO Miami Participates in Florida Governor's Hurricane Conference

*By Bob Ebaugh*

The National Weather Service Miami-South Florida Forecast Office participated and staffed a display at the 2010 Florida Governor's Hurricane Conference held at the Fort Lauderdale/Broward County Convention Center from May 24<sup>th</sup> through the 28<sup>th</sup>. The Florida



Governor's Conference consisted of numerous workshops and training sessions geared primarily towards the Emergency Management Community, media, rescue workers, and government officials. Topics ranged from hurricane forecasting and other tropical hazards to mitigation efforts and strategies resulting from hurricane or tropical storms. NWS meteorologists from across

Florida, along with NHC Hurricane Specialists, conducted seminars and classes throughout the week. Staff participating in helping with set-up of the display included David Dellinger (PMO), Nelsie Ramos (NHC), Dan Dixon (WFO), and Dr. Jack Beven (NHC).

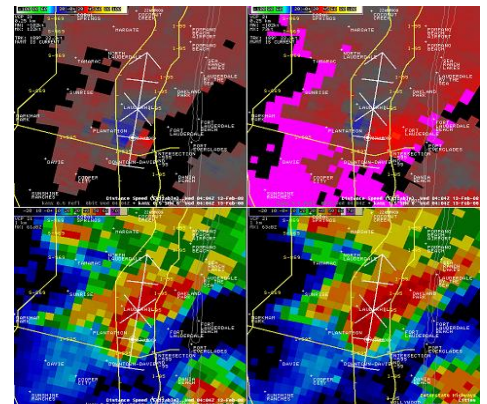
## Radar Operations



Thunderstorm over Doral - Jun 2010 - Dan Gregoria

*By Dan Dixon*

At the top of the list of important tools that meteorologists at WFO Miami use on a daily basis to protect your life and property is the Doppler Radar. The technical name for the Doppler Radar is WSR-88D, which is an acronym for Weather Surveillance Radar, 1988, Doppler. As the name implies, this form of radar was developed in the late 1980s and deployed to 159 locations across the entire United States, as part of an overlapping network of radars. The unique quality of the WSR-88D is that it has the ability to send out a single pulse of



KAMX radar indicates a possible tornado in Broward County. Feb. 12, 2008.

electromagnetic energy that detects both the presence and qualities of precipitation particles in the atmosphere, as well as the movement of those precipitation particles. This allows a meteorologist to determine important characteristics about a thunderstorm, such as how large or tall a thunderstorm is, and whether or not the storm may be producing rain, or a combination of rain and hail. Furthermore, information about the movement of precipitation particles can give a meteorologist valuable information about the strength of winds that a storm is producing, including the possibility of rotational motion which may indicate that a tornado is about to form. Other capabilities of the WSR-88D include the detection of strong winds within the eyewall of a hurricane, and the generation of precipitation accumulation maps, which allows forecasters at WFO Miami to issue urban flood advisories and flood warnings. The WSR-88D for South Florida is located near Zoo Miami, between the communities of Kendall and Cutler Ridge.



*By Andrew Tingle*  
*and Dr. Pablo Santos*

## **Mike Bettwy**

Mike Bettwy, has joined us as our new journeyman forecaster. Mike comes to us from the NWS office in Eureka, CA, where he also served as a journeyman forecaster. Previously, he was an intern at WFO Duluth, MN. While at Duluth he worked challenging severe weather events typical of the northern plains in the summer as well as winter storms in both Duluth as well as in Eureka. His work in Eureka has also provided him with marine forecasting experience. Prior to his NWS career, he was a science writer and climate research assistant for NASA.

## Joe Maloney

Joe Maloney, member of the Meteorological Development Laboratory (MDL) Model Output Statistics (MOS) development team, is our new ITO. Joe comes well recommended. He graduated with his M.S. in Meteorology 10 years ago at FSU, and since graduating, he has worked at MDL. Joe brings a strong programming background as well as experience in system administration and web development.

*Congratulations to the both of you and thanks for choosing WFO Miami in your career plans!*

# Thanks for Reading!



Chihuly glass art at Fairchild Tropical Botanic Garden - 2006 - Andrew Tingler

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